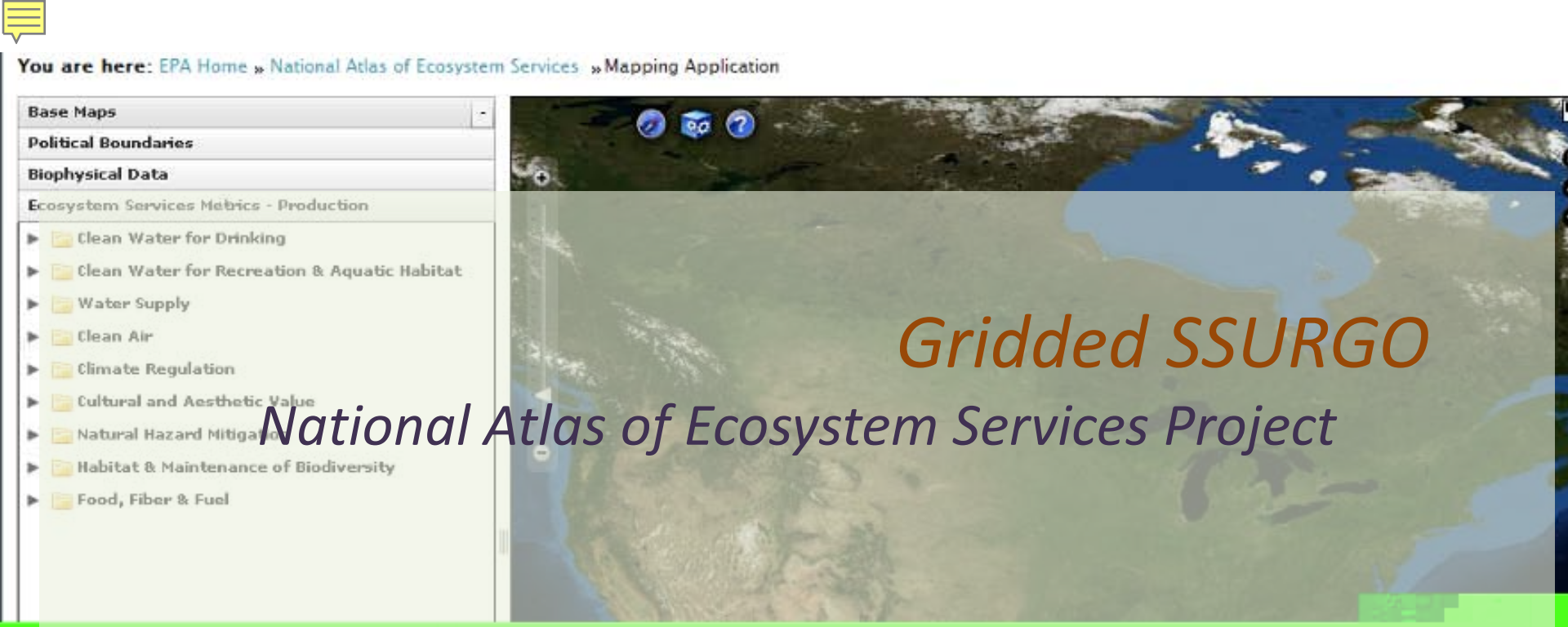
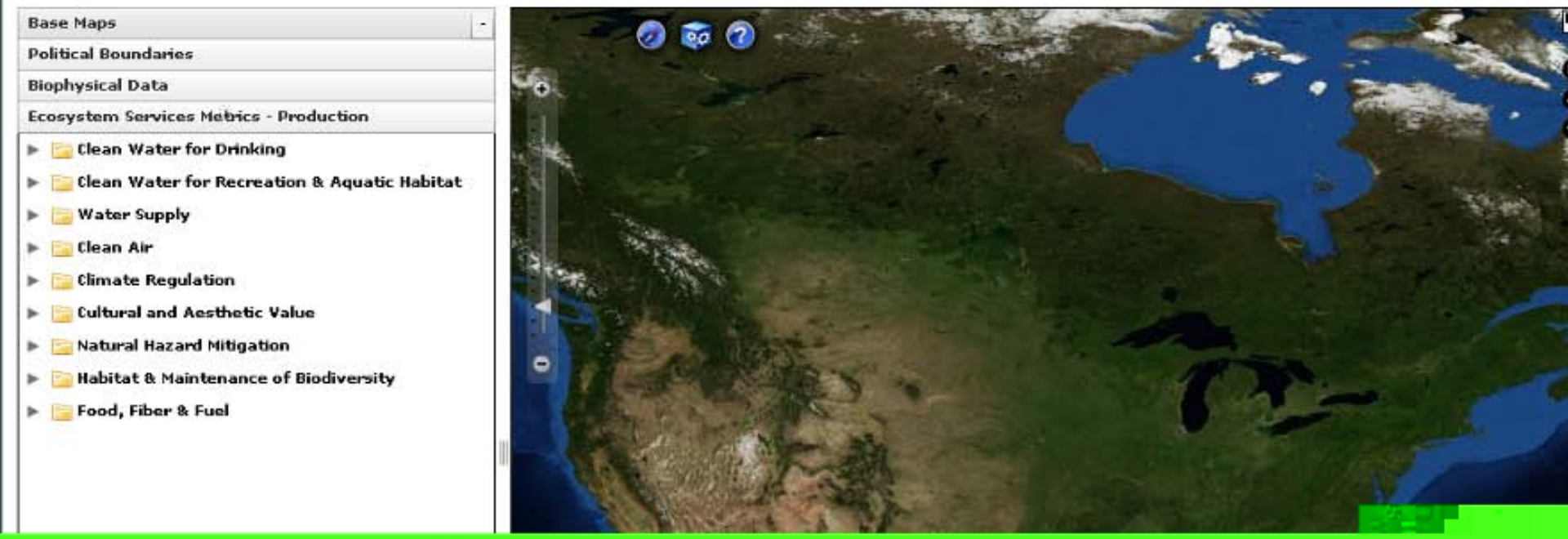
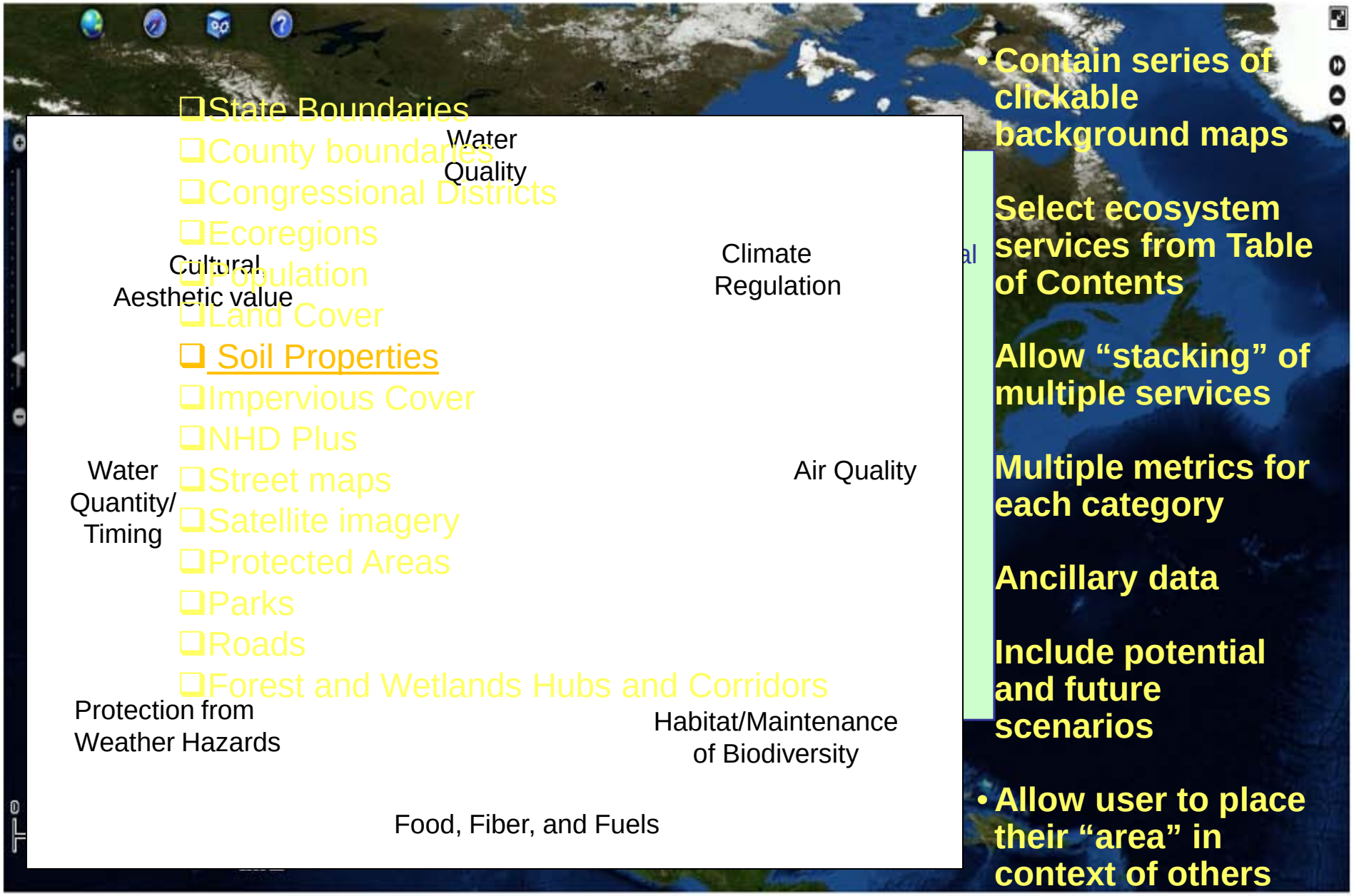


Gridded SSURGO

National Atlas of Ecosystem Services Project


Base Maps
Political Boundaries
Biophysical Data
Ecosystem Services Metrics - Production
Clean Water for Drinking
Clean Water for Recreation & Aquatic Habitat
Water Supply
Clean Air
Climate Regulation
Cultural and Aesthetic Value
Natural Hazard Mitigation
Habitat & Maintenance of Biodiversity
Food, Fiber & Fuel


❑State Boundaries
❑County boundaries
❑Congressional Districts
❑Ecoregions
❑Population
❑Land Cover
❑ Soil Properties
❑Impervious Cover
❑NHD Plus
❑Street maps
❑Satellite imagery
❑Protected Areas
❑Parks
❑Roads
❑Forest and Wetlands Hubs and Corridors
Water Quality
Climate Regulation
Air Quality
Habitat/Maintenance of Biodiversity
Food, Fiber, and Fuels
Protection from Weather Hazards
Water Quantity/ Timing
Cultural
Aesthetic value
• Contain series of clickable background maps
Select ecosystem services from Table of Contents
Allow “stacking” of multiple services
Multiple metrics for each category
Ancillary data
Include potential and future scenarios
• Allow user to place their “area” in context of others

Soil Contribution to Atlas – Gridded SSURGO

A key concept is using a nation-wide detailed soil survey geographic database (SSURGO) layer in a "value added" gridded format.

Soil Contribution to Atlas – Gridded SSURGO

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Soil Contribution to Atlas – Gridded SSURGO

Gridded SSURGO

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Rapid Assessment of Carbon and Deepwater Oil Spill

- *Utilized by USGS EROS Data Center and EPA to prepare the Value added Gridded SSURGO layer with standardized layers*

Gridded SSURGO

Is preferred by the GIS Modeling Community because:

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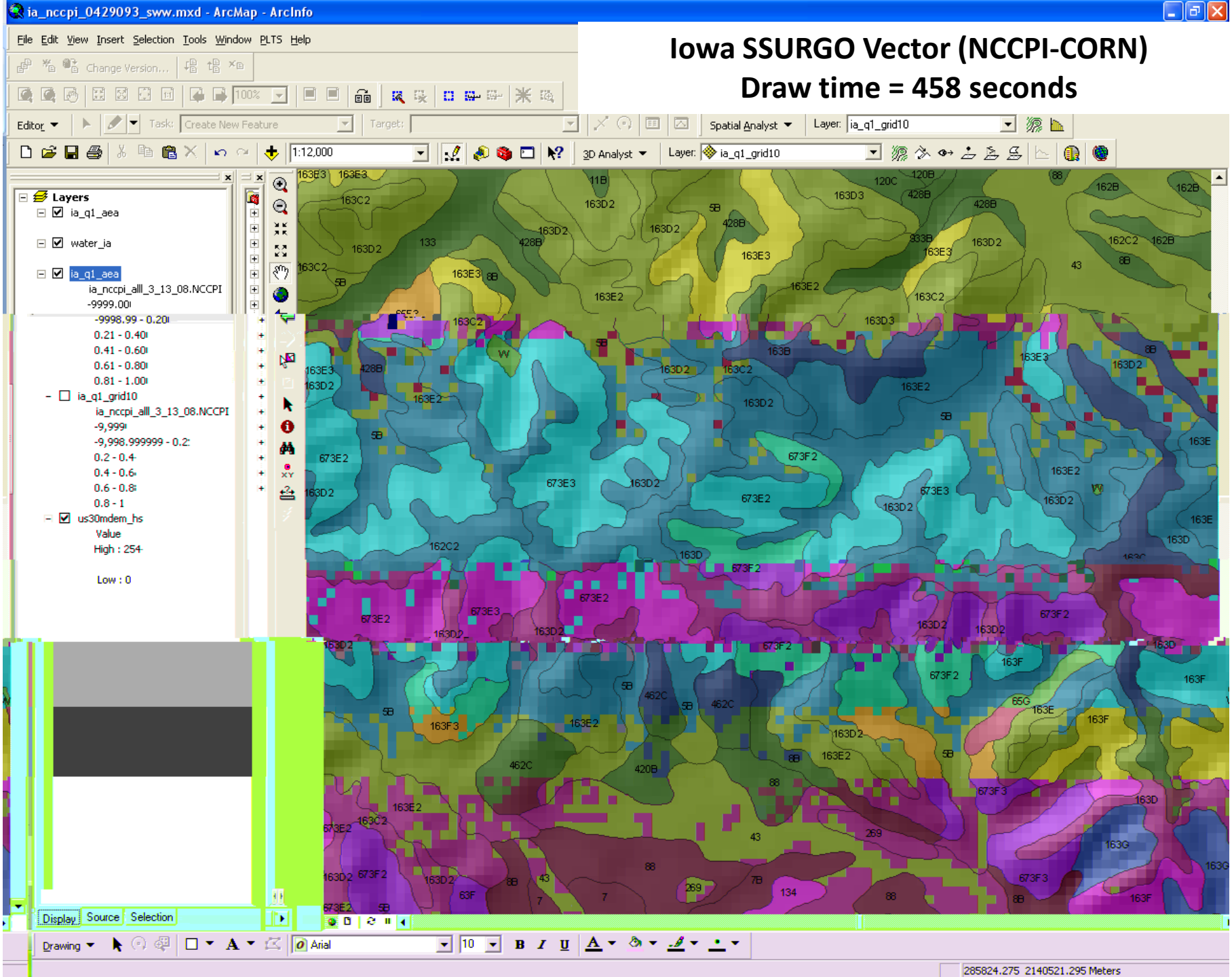
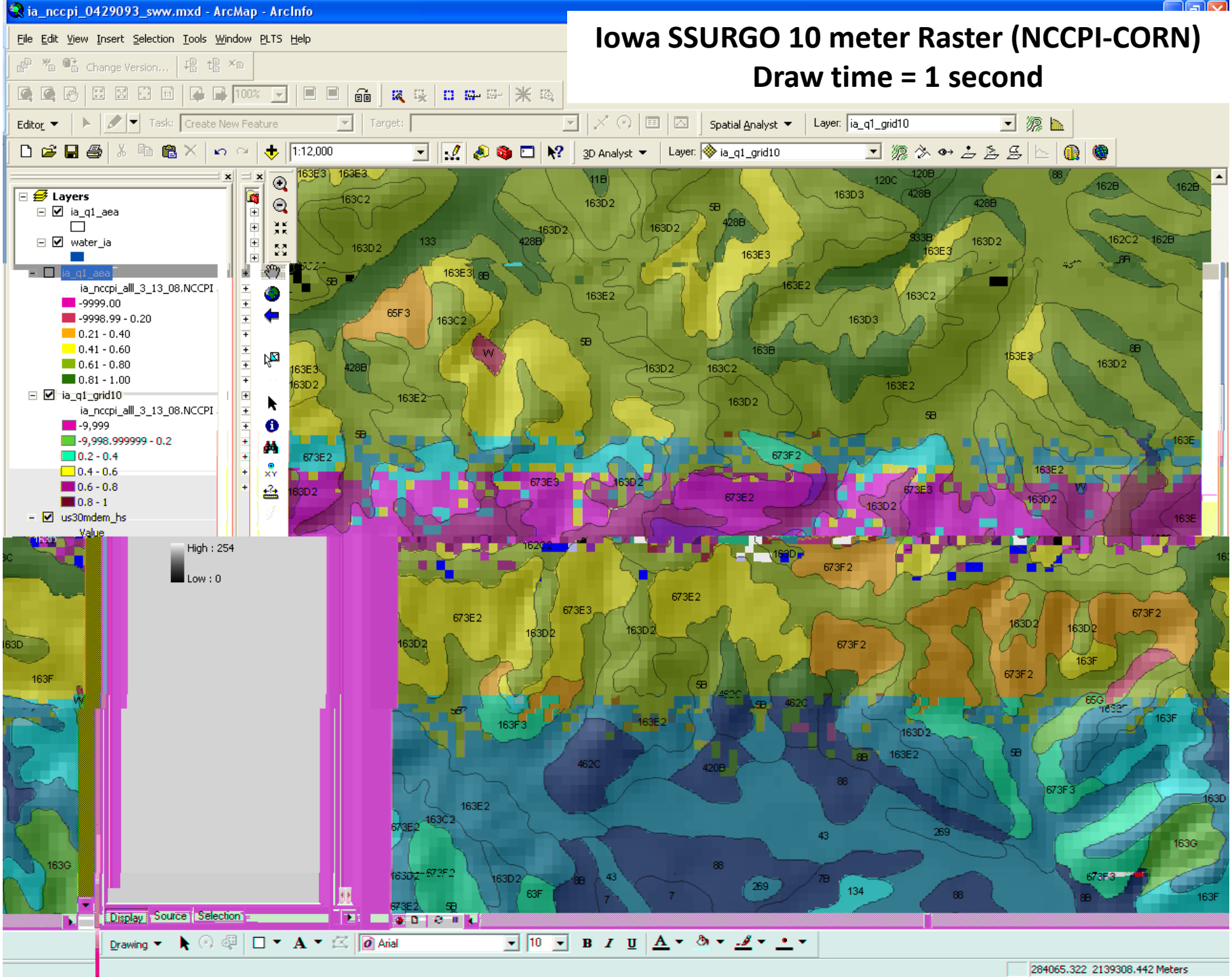


Iowa SSURGO Vector (NCCPI-CORN)
Draw time = 458 seconds

Iowa SSURGO 10 meter Raster (NCCPI-CORN)
Draw time = 1 second



USGS science for a changing world

NRCS Natural Resources Conservation Service

Detailed Mapping of Soil Organic Carbon Stocks in the United States Using SSURGO

Norman B. Bliss[1], Sharon W. Waltman[2], Larry West[2]

[1]ASRC, contractor to the U.S. Geological Survey (USGS) Earth Resources Observation and Science (EROS) Center, Sioux Falls, SD 57198. Work performed under USGS contract 08HQCN0007. bliss@usgs.gov
[2]USDA-NRCS National Soil Survey Center-Geospatial Research Unit, Morgantown, WV 26505.
[3]USDA-NRCS National Soil Survey Center, Lincoln, NE 68508.

B51F-0367

Introduction

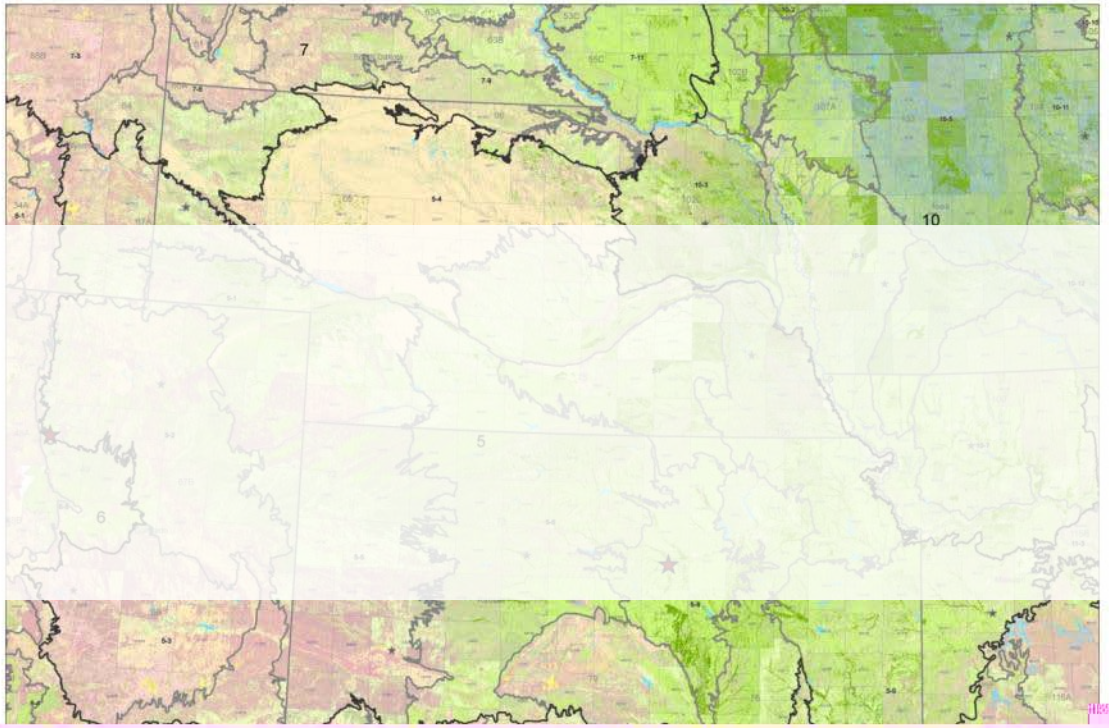
The quantity of soil organic carbon (SOC) stocks forms a foundation for understanding potential sequestration or release of carbon in the future in response to changes in land management and climate. We have made new maps and databases of SOC stocks for the conterminous United States from the Soil Survey Geographic (SSURGO) database, developed by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). These data have much greater spatial detail than the previous maps formed from the State Soil Geographic (STATSGO) data developed

Conclusions

We calculate the stock of soil organic carbon in the conterminous United States as 73.43 petagrams (Pg). This is greater than the estimate of 61 Pg made from the State Soil Geographic (STATSGO) database in 2003, although the difference is consistent

Conclusions

Soil Organic Carbon 100 cm Depth (om_r, Kg per square meter)
Central Great Plains Soil Survey Region (MO 5)



Gridded SSURGO

Is used by traditional NCSS Customers:

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Gridded SSURGO

Could be used by relatively new clients

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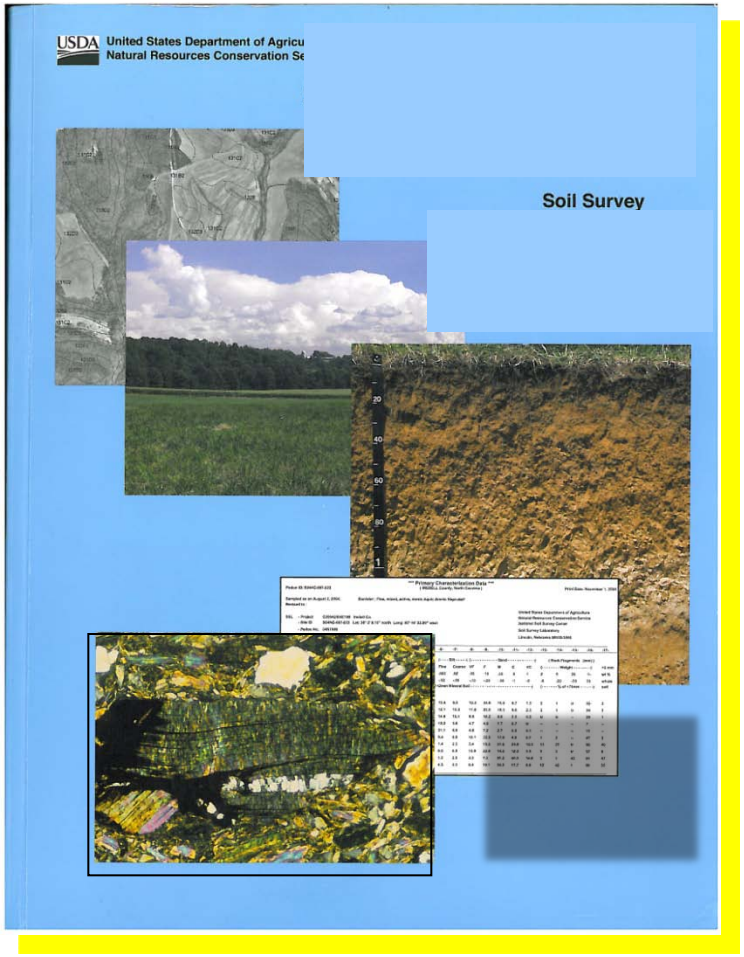
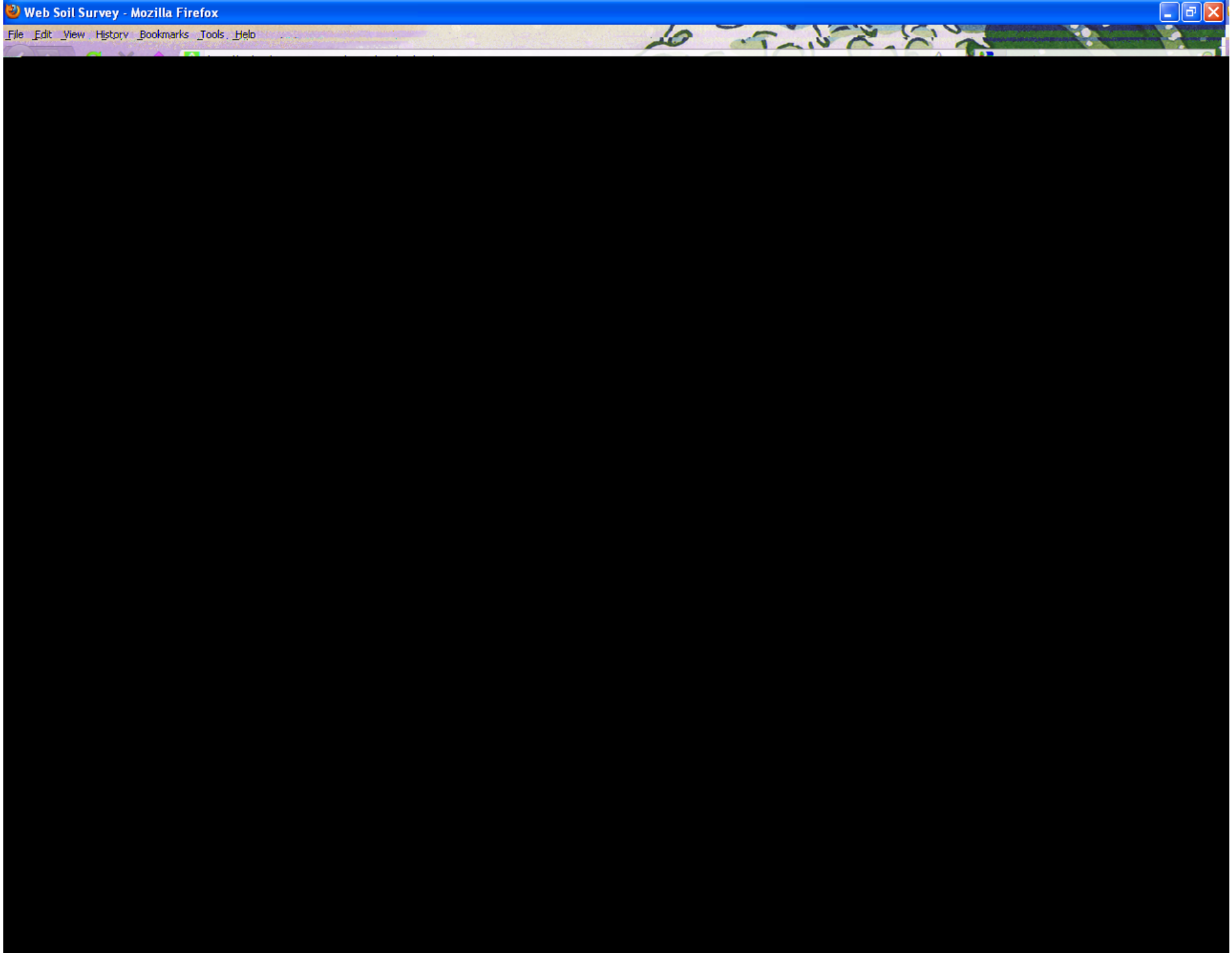
NCSS "Best Practices" for Gridded SSURGO Data Summary Methods Documented…



Potential Scalable Linkages…

from National Atlas of Ecosystem Services
12 digit HUC view to

detailed Soil Survey Information (WebSoilSurvey)?


Web Soil Survey - Mozilla Firefox
File Edit View History Bookmarks Tools Help

What do you get when you provide soils data in the gridded SSURGO format that the client desires?